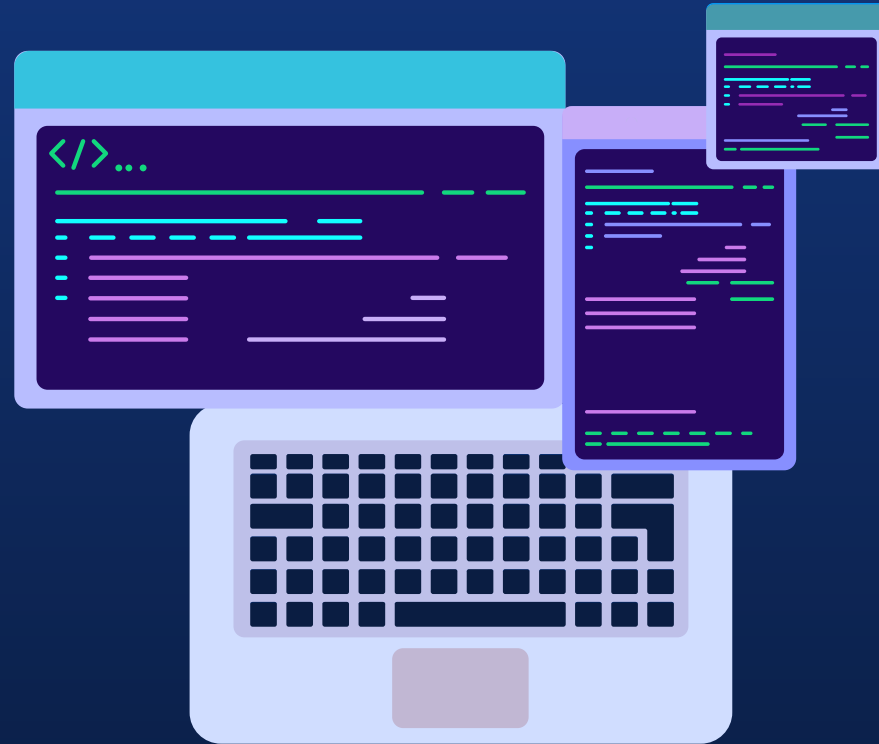




# ChainBid

Start2Impact  
Final Project





# Description


Auction platform that records the results of each auction on the Ethereum blockchain (Testnet Ropsten).

When an auction is created if the price and opening date are set properly, the system will automatically open the auction and make it available to all users in the "Live auctions" section on the set date.

Each auction remains open for a random time between 20 and 24 hours if no one places a bid.

When a user places a bid, the system waits 10 minutes before closing the auction (the previous random time is canceled) and decree the winner. If within this time another user places a new bid then the system restart waiting 10 minutes from that moment.

When an auction is closed, a report summarizing all the information about it is generated. Lastly the hash (SHA256) of the report is calculated and the result is written on chain. Thanks to the downloadable report and the transaction id (and the hash inside the transaction message), it is possible to check the authenticity of the winning and the reported data.






# Features

## User interface

- User registration and authentication.
- Schedule new auctions.
- View live auctions and place bids.
- View closed auctions and check the results.
- View the user profile.

## API endpoints

- User registration via token.
  - Authentication via token.
  - Retrieve current user information.
  - Retrieve the user profile.
  - List scheduled auctions or create a new one.
  - Retrieve, update, delete a scheduled auction.
  - Update scheduled auction's image.
  - List live auctions.
  - Retrieve a live auction.
  - List closed auctions.
  - Retrieve a closed auction.
  - List auctions won by the user.
- 

# Components and technologies

Back-end



Django

Core of the application



Django REST Framework

Services for external applications



Django Channels

Bidding system



Web3

Store reports on the blockchain



Celery

Scheduled tasks

# Components and technologies

Front-end



Vue.js

Core of the web-app



Vue Router

Page routing



Vue Toasted

Notifications



Bootstrap

Design and style



ReconnectingWebSocket

Bidding system



Moment.js

Date and time display

# Components and technologies

## Databases



SQLite3

Web-app structure and  
main storage



Redis

Bidding system and  
scheduled tasks

# USER INTERFACE OVERVIEW



### Create an account

Choose a username

Max 15 characters. Letters, digits and `!@#_` only.

Your email

New password

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Confirm password

Enter the same password as before, for verification.

Register

Log In

# Registration

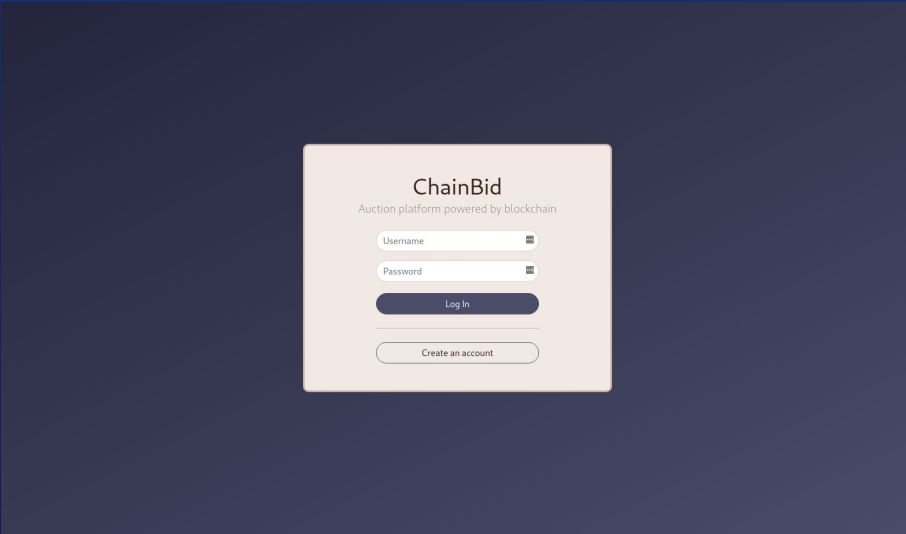

To access any page of the site is required to login or register a new account.





# Log in

To access any page of the site is required to login or register a new account.



ChainBid


Auction platform powered by blockchain

Username

Password

[Log In](#)

[Create an account](#)





ChainBid

Live auctions Closed auctions Schedule auctions

### Schedule auctions

Create a new auction

Title


Description

Initial price €

Opening date gg/mm/aaaa, ----

+ Create

Scheduled auctions

Title	Initial Price	Opening date
 Ngrave Zero	120.00 €	Not set

< 1/1 >

# Schedule auctions

This section is accessible only by admin users.

Through this page it is possible to add new auctions and plan their opening.

At the bottom there is a list of all auctions in the archive that have not been opened yet.

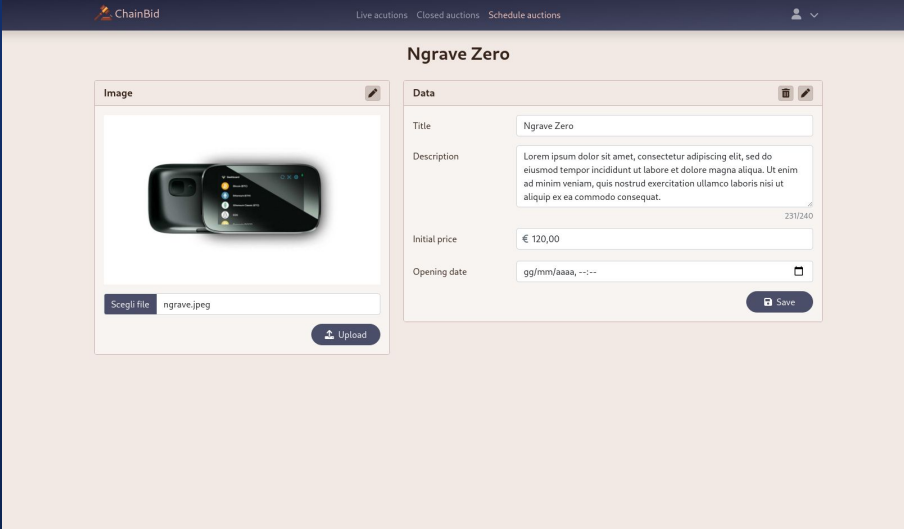


# Auction editor

This section is accessible only by admin users.

Through this page it is possible to upload the product image and change the information related to the auction.

Once an auction is opened it can no longer be edited.



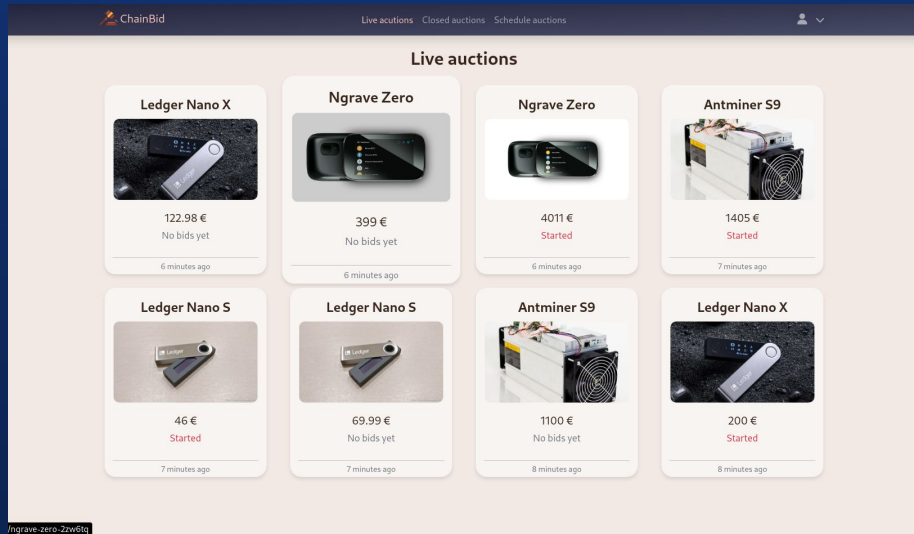
The screenshot displays the 'ChainBid' Auction editor interface. At the top, there is a navigation bar with links for 'Live auctions', 'Closed auctions', and 'Schedule auctions', along with a user profile icon. The main title of the page is 'Ngrave Zero'. The interface is divided into two primary sections: 'Image' and 'Data'.

The 'Image' section on the left features a large image placeholder showing a black smartphone. Below the image, there is a file selection area with a button labeled 'Scegli file' and the text 'ngrave.jpeg'. An 'Upload' button is located at the bottom right of this section.

The 'Data' section on the right contains several input fields for auction details:

- Title:** A text field containing 'Ngrave Zero'.
- Description:** A text area containing placeholder text: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.' A small '231/240' character count is visible at the bottom right of the text area.
- Initial price:** A text field containing '€ 120,00'.
- Opening date:** A text field containing 'gg/mm/aaaa, --:--' and a calendar icon on the right.

A 'Save' button is positioned at the bottom right of the 'Data' section.



# Live auctions

This is the homepage of the site. This page shows all opened auctions, those that have received any bids and are expiring shortly are marked as "started".




# Auction detail and bid

Through this page it is possible to bid on the auction selected and view all related details.

ChainBid

Live auctionsClosed auctionsSchedule auctions



Description

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.  
Initial price: 398.46 €  
Opened: 3 minutes ago

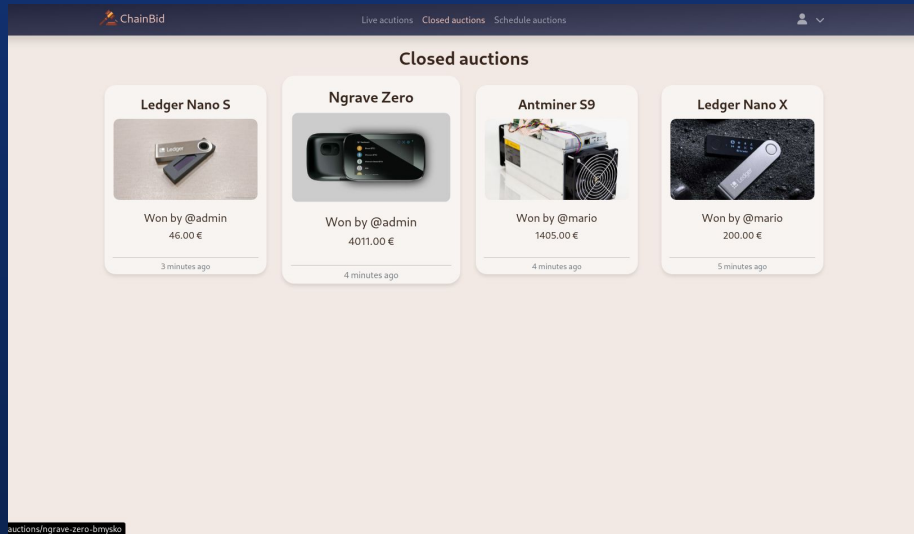
Ngrave Zero

Current price  
4011 €

Closing in  
08:00

€ Price

Bid




# Closed auctions

This page shows all closed auctions.





# Closed auction report

Through this page it is possible to view the details of the selected closed auction. In addition, it is possible to check the authenticity of the data displayed thanks to the transaction ID (and the hash inside the transaction message) and the downloadable report.

 ChainBid

Live auctionsClosed auctionsSchedule auctions






### Ngrave Zero


Winner: [@admin](#)

Initial price	Final price	Opened at	Closed at
398.46 €	4011.00 €	2021/11/10 - 10:50:00	2021/11/10 - 11:01:39

SHA256:

258aa080564eba79fa909e9d74c7275982d4e0eaf8c57b5d9c1a004609982d21

Transaction ID:


0x990bbfb70530158040284ec536e293b8f213bae5806ca6b6b324b3d9583c3b3f

Download


#### Description

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.



ChainBid

Live auctionsClosed auctionsSchedule auctions







### Account

Username: admin  
Email: admin@chainbid.com  
Auctions won: 2

Change passwordLog out

### Auctions won

	<b>Ledger Nano S</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod...	46.00 € 2021/11/10	
	<b>Ngrave Zero</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod...	4011.00 € 2021/11/10	

# User profile

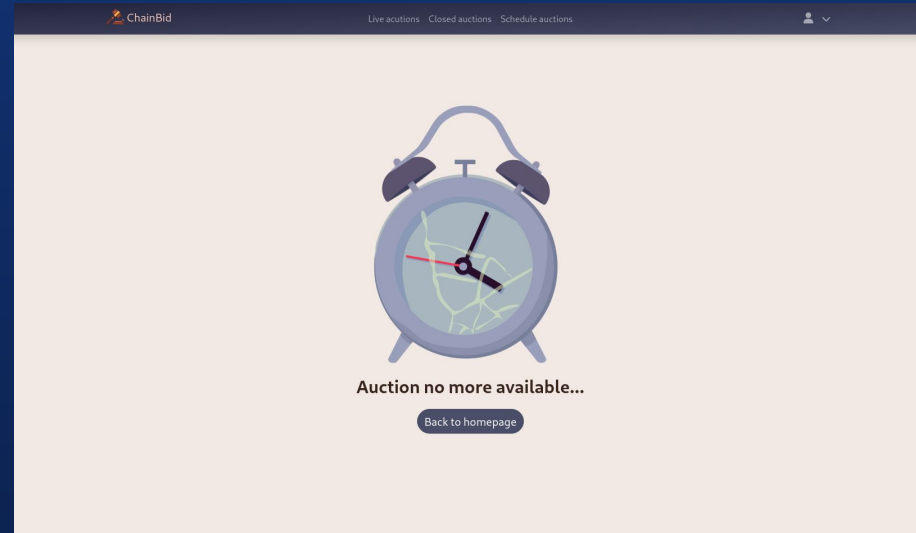
This page shows the user profile. In addition to the basic account information of a user, is also shown a list of all auctions won by the user.

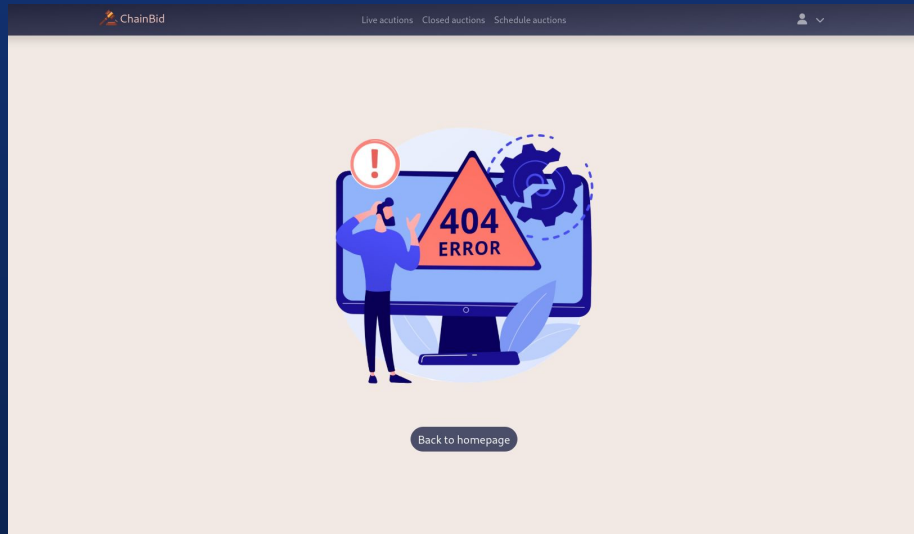




# Auction no more available

This page is shown when trying to view an auction that is no more available.  
For example via an expired or invalid link.





# Page not found

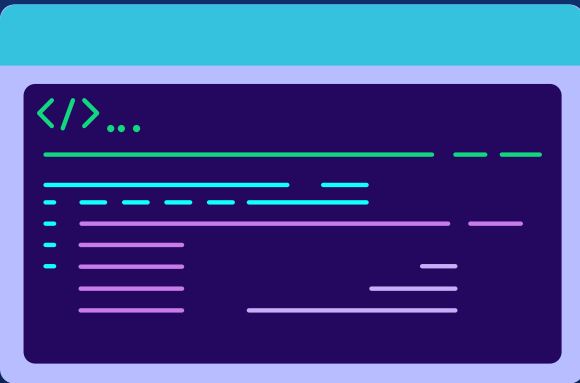
This page is shown when trying to view a page that does not exist or if an error occurred while loading a valid page.



# Bonus Mentoring



# THANKS



Source code on [GitHub](#)  
Live demo on [Amazon AWS](#)  
Portfolio on [Start2Impact](#)  
Portfolio on [Linkedin](#)



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